

独龙江楼梯草属新植物*

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NEW TAXA OF THE GENUS ELATOSTEMA (URTICACEAE) FROM DULONGJIANG

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关键词 多齿渐尖楼梯草; 拟盘托楼梯草; 李恒楼梯草; 拟渐尖楼梯草; 拟贡山楼梯草

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E. paracuminatum; *E. paragunshanense*

多齿渐尖楼梯草 变种

Elatostema acuminatum (Poir.) Brongn. var. *striolatum* W. T. Wang, var. nov.

A varietate typica differt foliis latioribus (usque ad 5 cm latis) margine lateris latioris 10-dentatis cystolithis 0.05—0.2 mm longis densis praeditis, petiolis usque ad 7 mm longis.

Yunnan (云南): Gongshan (贡山), Flumen Dulongjiang (独龙江), Maku (马库), alt. 1850 m, sub scopulis lapidosis humidis, 7 Mar. 1991, Exped. Dulongjiang. (独龙江考察队) 4250 (holotypus, PE: isotypus, KUN).

本变种的叶较宽 (宽达 5 cm), 宽侧边缘有 10 齿, 钟乳体密, 长 0.05—0.2 mm, 叶柄长达 7 mm; 在模式变种, 叶宽达 3.4 cm, 宽侧边缘有 3—7 齿, 通常无钟乳体, 叶柄长达 2 mm.

拟盘托楼梯草 新种

Elatostema dissectoides W. T. Wang, sp. nov.

Affine *E. dissecto* Wedd., quod foliis margine crenatis vel crenato-dentatis glabris, cystolithis majoribus 0.3—0.7 mm longis, pedunculis inflorescentiarum staminatarum usque ad 8 cm longis differt.

Herba. Caulis ca. 1 m altus, glaber. Folia brevissime petiolata vel subsessilia; laminae papyraceae, oblique angusteque obovatae vel ellipticae, 6—14.5 cm longae,

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2—5.6 cm latae, apice cuspidatae, cuspidibus integris basi oblique cuneatae, margine dentatae, supra sparsissime strigulosae, subtus ad nervos puberulae, cystolithis densis 0.1—0.2 mm longis, semitriplinerves, nervis lateralibus latere angustiore 4 latere latiore 5; stipulae anguste lanceolatae, ca. 3 mm longae, glabrae, caducae; petioli 1—3.5 mm longi, glabri. Inflorescentiae staminatae singulariter axillares, longe pedunculatae; pedunculi 1.4—4.2 cm longi, glabri; receptacula oblonga, 1.3—1.7 cm longa, 6—8 mm lata, medio saepe leviter constricta, glabra; bractae ca. 10, late ovatae, ca. 1 mm longae, apice obtusae, glabrae; bracteolae numerosae, lineares, 1.2—2 mm longae, hyalinae, apice cucullatae, flavido-virides, glabrae. Alabastra florum staminatorum numerosa, densa, ca. 1 mm diam., tetramera, glabra, apice 3—4-corniculata.

Yunnan (云南): Gongshan (贡山), Flumen Dulongjiang (独龙江), Qinlangdang (钦朗当), alt. 1240 m, herba 1.5 m alta. inflorescentiae virides, 10 Mar. 1991, Exped. Dulongjiang. (独龙江考察队) 4472 (holotypus, ♂, PE; isotypus, KUN); ibidem, alt. 1400 m, in sylvis sempervirentibus convallium, inflorescentiae virides, 9 Mar. 1991, Exped. Dulongjiang. 4434 (♂).

草本。茎高约 1 m, 无毛。叶具极短柄或近无柄; 叶片纸质, 斜狭倒卵形或椭圆形, 长 6—14.5 cm, 宽 2—5.6 cm, 顶端骤尖 (骤尖头全缘), 基部斜楔形, 边缘有牙齿, 上面极疏被短糙伏毛, 下面脉上被短柔毛, 钟乳体密, 长 0.1—0.2 mm, 具半离基三出脉, 侧脉在狭侧 4 条, 在宽侧 5 条; 托叶狭披针形, 长约 3 mm, 无毛, 速落; 叶柄长 1—3.5 mm, 无毛。雄花序单独腋生, 具长梗, 花序梗长 1.4—4.2 cm, 无毛, 花序托长圆形, 长 1.3—1.7 cm, 宽 6—8 mm, 中部稍缢缩, 无毛; 苞片约 10, 宽卵形, 长约 1 mm, 顶端钝, 无毛; 小苞片多数, 条形, 长 1.2—2 mm, 透明, 顶端兜状, 淡黄绿色, 无毛。雄花蕾多数, 密集, 直径约 1 mm, 四基数, 无毛, 顶端有 3—4 角状突起。

本种与盘托楼梯草 *E. dissectum* Wedd. 亲缘关系相近, 但后者的叶边缘具浅圆齿, 无毛, 钟乳体较大, 长 0.3—0.7 mm, 雄花序梗长达 8 cm, 可与本种区别。

李恒楼梯草 新种

Elatostema lihengianum W. T. Wang, sp. nov.

Ob plantas suffrutescentes ramosas, folia triplinervia *E. acuminato* (Poir.) Brongn. et *E. tenuicaudato* W. T. Wang simillimum, quae inflorescentia staminata receptaculo distincto carente valde differt.

Suffrutex. Caulis ca. 1 m altus, ramosus, superne et rami puberuli. Folia brevissime petiolata; laminae papyraceae, oblique angustaque ellipticae, 7—15.5 longae, 2—4.5 cm latae, apice cuspidatae vel caudatae, cuspidibus anguste lanceolato-linearibus 1.5—2.3 cm longis ca. 3 mm latis integris vel inferne margine utrinsecus 1-denticulatis, basi oblique cuneatae margine dentatae, supra sparsissime strigulosae, subtus ad nervos strigillosae, cystolithis nullis vel in nervis basalibus lateralibusque distributis ca. 0.1 mm longis, semitriplinerves, nervis lateralibus latere angustiore 3 latere latiore 4; stipulae anguste lanceolatae, ca. 4.5 mm longae, 1 mm latae, superne puberulae; petioli 1.5—3 mm longi, dense puberuli. Inflorescentiae staminatae axillares, 3—4 fasciculatae,

pedunculatae, juvenales ca. 4 mm longae; pedunculi 1.5—2.5 mm longi, puberuli; receptacula oblonga, ca. 3.5 mm longa; bracteae 2, orbiculari-ovatae, ca. 1.1 mm longae, basi connatae, puberulae; bracteolae exteriores paucae majores, deltoideae, interiores numerosae, minores, lineares, ca. 1 mm longae, dorso puberulae. Inflorescentiae pistillatae singulariter axillares; pedunculi robusti, ca. 0.5 mm longi; receptacula elliptica, ca. 1.8 mm longa, glabra; bracteae ca. 4, superne brunneo-purpureae, late ovatae, ca. 0.8 mm longae, 1 mm latae; bracteolae brunneo-purpureae, naviculari-lineares vel obovatae, 0.3—0.5 mm longae, dorso puberulae. Flores pistillati numerosi; tepala nulla; ovarium anguste ellipsoideum, 0.2 mm longum; stigma penicillatum 0.3 mm longum.

Yunnan (云南): Gongshan (贡山), Flumen Dulongjiang (独龙江), Dandangwangluo (担当王洛), alt. 1400 m, in sylvis sempervirentibus, suffrutex 1.5 m altus, fl. virides, 16 Jan. 1991, Exped. Dulongjiang. (独龙江考察队) 3178 (holotypus, ♂, PE; isotypus, KUN); ibidem, Gamelaihe (嘎莫赖河), alt. 1450 m, in sylvis convallium, herba ramosa, 50 cm alta, fl. virides, 25 Jan. 1991, Exped. Dulongjiang. 3396 (♂); ibidem, Qinlangdang (钦朗当), alt. 1500 m, in sylvis sempervirentibus, herba 30—80 cm alta, inflorescentiae virides, 9 Mar. 1991, Exped. Dulongjiang 4377 (♂).

亚灌木。茎高约 1 m, 多分枝, 上部及枝条被短柔毛。叶具极短柄; 叶片纸质, 斜狭椭圆形, 长 7—15.5 cm, 宽 2—4.5 cm, 顶端骤尖或尾状 (尖头狭披针状条形, 长 1.5—2.3 cm, 宽约 3 mm, 全缘或下部边缘每侧有 1 小齿), 基部斜楔形, 边缘具牙齿, 上面极疏被短糙伏毛, 下面脉上被短糙毛, 钟乳体不存在, 或只分布于基出脉或侧脉, 长约 0.1 mm, 具半离基三出脉, 侧脉在狭侧 3 条, 在宽侧 4 条; 托叶狭披针形, 长约 4.5 mm, 宽 1 mm, 上部被短柔毛; 叶柄长 1.5—3 mm, 密被短柔毛。雄花序腋生, 3—4 枚簇生, 具梗, 幼花序长约 4 mm; 花序梗长 1.5—2.5, 被短柔毛; 花序托长圆形, 长约 3.5 mm; 苞片 2, 圆卵形, 长约 1.1 mm, 基部合生, 被短柔毛; 外方小苞片少数, 较大, 正三角形, 内方小苞片多数, 较小, 条形, 长约 1 mm, 背面被短柔毛。雌花序单独腋生; 花序梗粗壮, 长约 0.5 mm; 花序托椭圆形, 长约 1.8 mm, 无毛; 苞片约 4, 上部褐紫色, 宽卵形, 长约 0.8 mm, 宽 1 mm; 小苞片褐紫色, 船状条形或倒卵形, 长 0.3—0.5 mm, 背面被短柔毛。雌花多数; 花被片不存在; 子房狭椭圆球形, 长 0.2 mm, 画笔状柱头长 0.3 mm。

本种为亚灌木, 多分枝, 叶具半离基三出脉, 在这些方面与渐尖楼梯草 *E. acuminatum* (Poir.) Brongn. 和细尾楼梯草 *E. tenuicaudatum* W. T. Wang 极为相似, 但这二种的雄花序的花序托极小, 极不明显, 而与本种截然不同。

拟渐尖楼梯草 新种

Elatostema paracuminatum W. T. Wang, sp. nov.

Affine *E. laevis* W. T. Wang et *E. acuminatum* (Poir.) Brongn., illud foliis siccitate saepe nigrescentibus apice cuspidatis, cuspidibus 1.5—2 cm longis, nervis lateralibus latere angustiore 2—3 latere latiore 3—4, inflorescentiis staminatis minoribus 3

—4 mm diam., pedunculis brevioribus 1.5—2 mm longis; hoc foliis minoribus usque ad 12 cm longis 3.4 cm latis apice acuminatis vel longe acuminatis distinguitur.

Suffrutex. Caulis ca. 1 m sltus, ramosus, glaber. Folia brevissime petiolata; laminae papyraceae, oblique longeque ellipticae, 11—17 cm longae, 3.5—5.6 cm late, apice caudatae, caudis lanceolato—linearibus 2.5—3.5 cm longis 2—3 mm latis integris, basi oblique lateque cuneatae, margine dentatae, supra sparsissime hirsutulae, subtus sparse strigillosae, cystolithis nullis, trinerves, nervis lateralibus latere angustiore 4 latere latiore 4—6; stipulae anguste lineari—lanceolatae, ca. 1 cm longae, superne sparse puberulae; petioli 1.6—5 mm longi, glabri. Inflorescentiae staminatae singulariter axillares, pedunculatae, ca. 6 mm diam.; pedunculi graciles, ca. 3 mm, longi, glabri; receptacula ca. 2 mm diam., glabra; bracteae ca. 3, inaequales, depresso—orbiculares vel depresso—ovatae, 2—3 mm latae, glabrae; bracteolae numerosae, densae, navicularilineares vel naviculari—oblongae, ca 2 mm longae, apice plerumque cucullatae et puberulae. Flores staminati longe pedicellati; pedicelli ca. 2 mm longi, glabri; tepala 4, rosea, elliptica, ca. 1 mm longa, apice breviter corniculata et puberula; stamina 4.

Yunnan (云南): Gongshan (贡山), Flumen Dulongjiang (独龙江), Shihuiyao (石灰窑), alt. 1450 m, in sylvis convallium, herba, fl. rosei, 14 Mar. 1991, Exped. Dulongjiang. (独龙江考察队) 5035 (holotypus, ♂, PE; isotypus, KUN).

亚灌木。茎高约 1 m，分枝，无毛。叶具极短柄；叶片纸质，斜长椭圆形，长 11—17 cm，宽 3.5—5.6 cm，顶端尾状（尾状尖头披针状条形，长 2.5—3.5 cm，宽 2—3 mm，全缘，）基部斜宽楔形，边缘具牙齿，上面疏被短硬毛，下面疏被短糙毛，无钟乳体，具三出脉，侧脉在狭侧 4 条，在宽侧 4—6 条；托叶狭条状披针形，长约 1 cm，上部疏被短柔毛；叶柄长 1.6—5 mm，无毛。雄花序单独腋生，具梗，直径约 6 mm；花序梗细，长约 3 mm，无毛；花序托直径约 2 mm，无毛；苞片约 3，不等大，扁圆形或扁卵形，宽 2—3 mm，无毛；小苞片多数，密集，船状条形或船状长圆形，长约 2 mm，顶端多呈兜状，被短柔毛。雄花具长梗；花梗长约 2 mm，无毛；花被片 4，粉红色，椭圆形，长约 1 mm，顶端具短角状突起和短柔毛；雄蕊 4。

本种接近光叶楼梯草 *E. laevissimum* W. T. Wang 和渐尖楼梯草 *E. acuminatum* (Poir.) Brongn.; 前者的叶干时常变黑色，顶端骤尖（骤尖头长 1.5—2 cm），侧脉在狭侧 2—3 条，在宽侧 3—4 条，雄花序较小，直径 3—4 mm，花序梗较短，长 1.5—2 mm，可与本种区别；后者的叶较小，长达 12 cm，宽达 3.4 cm，顶端渐尖或长渐尖，而与本种不同。

拟贡山楼梯草 新种

***Elatostema parangshanense* W. T. Wang, sp. nov.**

Affine *E. gungshanensi* W. T. Wang, quod caule superne puberulo, foliis minoribus usque ad 4.6 cm longis 1.8 cm latis utrinque strigosis, cystolithis minoribus 0.1—0.2 mm longis, inflorescentiis staminatis ca. 15—floris longius pedunculatis, bracteis brevissime corniculatis superne pilosis facile recedit.

Herba. Caulis ascendens, basi ad terram prostratus et radicans, ca. 25 cm altus, breviter ramosus, glaber. Folia brevissime petiolata, glabra; laminae papyraceae, oblique obovatae vel oblique ellipticae, ca. 7 cm longae, 3.5 cm latae, apice acuminatae, basi latere angustiore cuneatae latere latiore rotundatae, margine crenato-dentatae, cystolithis bacilliformibus densis 0.2—0.4 mm longis, semitriplinerves, nervis lateralibus latere angustiore 3 latere latiore 4; stipulae anguste lineares vel subulato-lineares, 5—7 mm longae, ca. 0.8 mm latae; petioli 2—3.5 mm longi. Inflorescentiae staminatae singulariter axillares, graciliter pedunculatae, 20—60-florae; pedunculi 7—12 mm longi, glabri; receptacula inconspicua; bracteae 4, glabrae, 2 majores late ovatae, 2 mm longae et latae, apice corniculatae, cornibus 3 mm longis, 2 minores triangulares, 3 mm longae, 2 mm latae, haud corniculatae; bracteolae naviculari-lineares vel lanceolatae, 1—3 mm longae, majores apice cucullatae et breviter corniculatae, glabrae. Flores staminati breviter pedicellati, glabri; tepala 4, elliptica, ca. 1.2 mm longa, apice corniculata; stamina 4; pistillodium ca. 0.2 mm longum.

Yunnan (云南): Gongshan (贡山), Flumen Dulongjiang (独龙江), Telawanghe (特拉王河), alt. 1560 m, in sylvis convallium, herba, fl. virides, 28 Jan. 1991, Exped. Dulongjiang. (独龙江考察队) 3628 (holotypus, ♂, PE; isotypus, KUN).

草本。茎渐升，基部伏地并生根，高约 25 cm，有短分枝，无毛。叶具极短柄，无毛；叶片纸质，斜倒卵形或斜椭圆形，长约 7 cm，宽 3.5 cm，顶端渐尖，基部狭侧楔形，宽侧圆形，边缘有浅牙齿，钟乳体杆状，密，长 0.2—0.4 mm，具半离基三出脉，侧脉在狭侧 3 条，在宽侧 4 条；托叶狭条形或钻状条形，长 5—7 mm，宽约 0.8 mm；叶柄长 2—3.5 mm。雄花序单独腋生，有细梗，有 20—60 朵花；花序梗长 7—12 mm，无毛；花序托不明显；苞片 4，无毛，2 枚较大，宽卵形，长及宽均为 2 mm，顶端具长 3 mm 的角状突起，另 2 枚较小，三角形，长 3 mm，宽 2 mm，无突起；小苞片片状条形或披针形，长 1—3 mm，较大者顶端呈兜状，并有短角状突起，无毛。雄花具短梗，无毛；花被片 4，椭圆形，长约 1.2 mm，顶端具角状突起；雄蕊 4；退化雌蕊长约 0.2 mm。

本种与贡山楼梯草 *E. gungshanense* W. T. Wang 亲缘关系相近；后者的茎上部被短柔毛，叶较小，长达 4.6 cm，宽达 1.8 cm，两面被糙伏毛，钟乳体较小，长 0.1—0.2 mm，雄花序约有 15 朵花，具较长花序梗，苞片有极短的角状突起，上部被疏毛，可易与本种区别。

钦朗当楼梯草 变种

Elatostema tenuicaudatoides W. T. Wang var. *orientalis* W. T. Wang, var. nov.

A varietate typica differt uno nervorum lateralium inferiorum lateris angustioris folii 5—11 cm longo a costa sub angulo acuto sursum abiente, tepalis floris staminati extus glabris.

Yunnan (云南): Gongshan (贡山), Flumen Dulongjiang (独龙江), Qinlangdang (钦朗当), alt. 1280 m, in sylvis prope rivolos, herbae 60—100 cm altae, ramosae, inflorescentiae flovo-virides, 10 Mar. 1991, Exped. Dulongjiang. (独龙江考察队)

4470 (holotypus, PE; isotypus, KUN), 4528; ibidem, Maku (马库), alt. 1500 m, inter frutices in convallibus, 17 Dec. 1990, Exped. Dulongjiang. 1157; ibidem, alt. 1850 m, sub scopulis lapidosis humidis, herbae 80 cm altae, carnosae, ramosae, folia caudata, 7 Mar. 1991, Exped. Dulongjiang. 4226.

本变种的叶狭侧下方一条侧脉长 5—11 cm, 雄花被片外面无毛; 在模式变种, 叶狭侧下面侧脉长 2.4—4 cm, 雄花被片外面密被短柔毛。